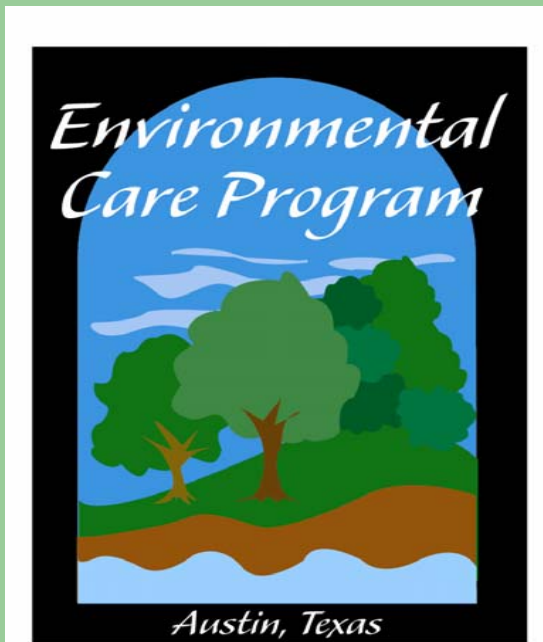




Austin Energy's EMS: Goin' For the Gold

Presented by
Todd Shaw, P.E.



Austin Energy

- 10th largest community-owned electric utility
- Over 100 years of service to the City of Austin
- 420 square miles of service area
- Serves 315,000 residential and 40,000 commercial customers
- 2,736 MW of generation from a mix of nuclear, coal, natural gas, fuel oil, wind, land-fill gas, solar



Demonstrated Commitment to Care of the Environment

- **1982** – Developed one of the most comprehensive energy efficiency programs
- **1991** – Developed first and largest Green Building Program
- **2000** – Created GreenChoice, the top performing renewable energy program in the nation
- **2002** – First utility to connect a fuel cell to the electric grid in Texas
- **2004** – First utility in the world to develop a combined cooling, heating and power plant
- **2007** – Mayor of Austin establishes Climate Protection Plan- the most ambitious commitment by any City to fight global warming

Austin Energy's Commitment to the Future

“It is my intention for Austin Energy to be part of the new energy future and play an important and significant role in defining it.”

- Juan Garza, Austin Energy General Manager

Vision - *We want Austin to be the most livable community in the county.*

Mission - *To deliver clean, affordable, reliable energy and excellent customer service.*

Austin Energy's Commitment to the Future

- By 2020
 - Establish voluntary cap on greenhouse gas emissions
 - 30% of energy supply from renewable resources
 - 700 MW of load met through energy efficiency efforts
 - 100 MW of Solar
- Established photovoltaic rebate program with highest rebate level in the country
- Support binding limits on national power sector CO₂ emissions

Recognition for Environmental Excellence

- Ranked #1 in the country by the U.S. Department of Energy's National Renewable Energy Laboratory for most green power sales
- Green Public Service Award from the U.S. Green Building Council for pioneering Green Building Program
- The U.S. Department of Energy's Innovator Award recognizing Austin Energy's leadership in conservation and renewable energy programs
- Green Building Program of the Year Award by the National Association of Homebuilders

TCEQ Mock EMS Audit

July 2003



Decker Creek Power Station



Spill Prevention

Chemical Storage



JUL 29 2003



JUL 29 2003



Notebook No. _____ 1

Continued From Page _____

Container ID	Removal Date
DPO302-02	3/18/03
DPO202-01	4/1/03



Waste Storage

\$500,000 to Bring Decker into Compliance with SPCC Regulations



2004/07/08

FINDINGS AND ALLEGED CIVIL VIOLATIONS

1. Austin Energy is a Firm qualified to do business in the State of Texas with a place of business located in Austin, Texas. The Respondent is a person within the meaning of Section 311(a)(7) of the Act, 33 U.S.C. §1321(a)(7).

2. Respondent is the owner/operator of an onshore facility located at 8003 Decker Lane in Austin, Texas (facility).

3. Section 311(b)(3) of the Act prohibits the discharge of oil into or upon the navigable waters of the United States or adjoining shorelines in such a manner that may be harmful to the public health or welfare or environment.

4. For purposes of Section 311(b)(3) and (b)(4) of the Act, discharges of oil into or upon the navigable waters that have been determined may be harmful to the public health or welfare of the United States are defined in 40 C.F.R. §110.3 to include discharges that result in a sheen upon or discoloration of the surface of the water or

5. On June 30, 2003, Respondent discharged thirty barrels of oil into or upon the navigable waters of the United States or adjoining shorelines in a quantity that has been determined may be harmful to the public health or welfare of the United States as defined in Section 502(7) of the Act, 33 U.S.C. §1321(a)(1), and

6. Lake Walter E. Long enters the Colorado River from the State of Texas as defined in Section 502(7) of the Act, 33 U.S.C. §1321(a)(1), and

7. Respondent's June 30, 2003 discharge of oil into or upon the navigable waters of the United States or adjoining shorelines in a quantity that has been determined may be harmful to the public health or welfare of the United States as defined in Sections 311(b)(3) and (b)(4) of the Act.

8. Respondent's June 30, 2003 discharge of oil into or upon the navigable waters of the United States or adjoining shorelines in a quantity that has been determined may be harmful to the public health or welfare of the United States as defined in Sections 311(b)(3) of the Act, 33 U.S.C. §1321(a)(1), and 40 CFR 19.4, the Respondent is liable for civil penalties up to a maximum of \$27,500.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1446 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2738

September 17, 2003

CERTIFIED MAIL, RETURN RECEIPT REQUESTED:
7002 0510 0003 6239 6925

██████████
Manager, Environmental Services
City of Austin Electric Utility
Town Lake Center
721 Barton Springs Road
Austin, Texas 78704-1194

Re: Expedited Spill Settlement Agreement
Docket No. CWA-06-2003-4584
City of Austin Electric Utility
Decker Unit 1 Lube Oil Reservoir
Decker Creek Steam Generating Station

The Environmental Protection Agency (EPA) is authorized under the Clean Water Act to pursue civil penalties for violations of the Act. Pursuant to the Act, a specific oil spill by your facility may be subject to civil penalties and Alleged Civil Violations Form (Form). EPA is conducting an investigation of the violations cited in the enclosed Settlement Agreement. The enclosed Compliance Agreement is in accordance with 40 CFR Part 22, "Consolidated Assessment of Civil Penalties, Issuance of Compliance Revocation, Termination or Suspension of Permits."

You may resolve the cited violations quickly by checking for the penalty as described below, and signing the Settlement Agreement within 30 days of your receipt of this letter. If you do not sign the settlement, you must correct the violations within 30 days of the date of this letter. At its discretion, may grant one 30-day extension of time to sign the settlement. This extension should be sent to the OPA Enforcement Section by the date of this letter.

Internet Address (URL): www.epa.gov
Recycled/Recyclable • Printed with Vegetable Oil Based Ink

Kathleen Hartnett White, *Chairman*
R. B. "Ralph" Marquis, *Commissioner*
Larry R. Soward, *Commissioner*
Glenn Shankle, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Protecting Texas by Reducing and Preventing Pollution

August 19, 2004

CERTIFIED MAIL 7000 0520 0022 7537 1203
RETURN RECEIPT REQUESTED

██████████
City of Austin dba Austin Energy
721 Barton Springs Rd.
Austin, Texas 78704-1194

Re: Notice of Violation for the Compliance File Review Investigation at:
Decker Creek Power Plant, 8003 Decker Ln., Austin (Travis County)
TCEQ ID No.: RN100219872; TH-0004-D

On August 5, 2004, Greg P. Yant of the Texas Commission on Environmental Quality (TCEQ) Austin Region Office conducted an investigation of the above-referenced facility to evaluate compliance with applicable requirements for air quality. Enclosed is a summary which lists the investigation findings.

In the listing of alleged violations, we have cited applicable requirements, including TCEQ rules. If you are unable to obtain a copy of the applicable TCEQ rules, you may contact any of the sources listed in the enclosed summary. The compliance schedule included in this investigation.

Summary of Investigation Findings

DECKER CREEK POWER PLANT	Investigation # 288879
8003 DECKER LN	Investigation Date: 08/05/2004
AUSTIN, TRAVIS COUNTY, TX 78724	
Additional ID(s): 2629	
TH0004D	
22	

ALLEGED VIOLATIONS NOTED AND RESOLVED

Track No: 170628
30 TAC Chapter 101.201(a)(1)(B)

Alleged Violation: Investigation: 288879
Comment Date: 08/16/2004
During the Upset/Maintenance Level 3 (UML3) File Review Investigation conducted on August 5, 2004, it was determined that City of Austin dba Austin Energy, Decker Creek Power Plant, located at 8003 Decker Ln., Austin (Travis County), failed to notify the TCEQ Austin Region Office within 24 hours after the discovery of a reportable opacity event. This constitutes a violation of 30 Tex. Admin. Code 101.201(a)(1)(B), which states that as soon as practicable, but not later than 24 hours after the discovery of an emission event, the owner or operator of a facility shall notify the commission office for the region in which the facility is located, and all appropriate local air pollution control agencies, if the emissions event is reportable.

Recommended Corrective Action: The reportable opacity event with all required information was submitted to the TCEQ Austin Region Office, via State of Texas Environmental Electronic Reporting (STEERS), on August 6, 2004, resolving the violation.

Resolution: The reportable opacity event with all required information was submitted to the TCEQ Austin Region Office, via State of Texas Environmental Electronic Reporting (STEERS), on August 6, 2004, resolving the violation.

Track No: 170665
30 TAC Chapter 116.115(c)

PERMIT 2629
Opacity of emissions from the Decker Creek Boiler Unit 2 must not exceed 20 percent averaged over a six-minute period, except for those periods described in Texas Commission on Environmental Quality 30 Tex. Admin. Code 111.111(a)(1)(E).

Alleged Violation: Investigation: 288879
Comment Date: 08/16/2004
This also constitutes a violation of 30 Tex. Admin. Code 116.115(c), which states that the holders of permits, special permits, standard permits, and special exemptions shall comply with all special conditions contained in the permit document.

Recommended Corrective Action: The reportable opacity event with all required information was submitted to the TCEQ Austin Region Office, via State of Texas Environmental Electronic Reporting (STEERS), on August 6, 2004, resolving the violation.

512/339-2929 • Fax 512/339-3795
Address: www.tceq.state.tx.us

Violations & Enforcement Actions

Decker's Path to Gold



Getting Started

- How to sell it!
- What motivates sponsors and stakeholders
- Consultants
- Software

Communication

- Create a place and time for employees to talk
- Identify meetings where issues are discussed
- Find out when and how work is prioritized
- Situate advocates in the right places
- Have shorter discussions, but more often
- Training and procedures
- Include all business units sharing site

Root Cause Chemical Storage Example

2003 TCEQ Audit

- **Finding** – Chemicals not labeled, stored improperly and containers leaking
- **Root Cause** – No inspection/No accountability
- **Plant Response** – Clean out chemical storage areas



Root Cause Chemical Storage Example



February 2006 Audit

- **Finding** – Flammables in non-flammable cabinet, strong acids and bases stored together
- **Root Cause** – No monitoring of chemical storage areas and no accountability

Root Cause Chemical Storage Example

- **Plant Response** - Post signs instructing employees on what chemicals are allowed in storage areas



Root Cause Chemical Storage Example

August 2006 Audit



- **Finding** – Aging corrosive chemical containers stored near flammable
- **Root Cause** – 1) A clear product-to-waste policy not been established for site, 2) Aging chemical containers have the potential to leak, and 3) A clear policy on storing chemicals that possess multiple hazardous characteristics has not been established.

Root Cause Chemical Storage Example

August 2006 Audit

Corrective Plant Response

- Determine where to store chemicals that are both flammable or corrosive and move to proper storage location
- Inspect containers found during audit to determine cause and extent of corrosion
- Add placards were added to the new cabinets

Root Cause Chemical Storage Example

August 2006 Audit

Preventative Plant Response

- Create a procedure on when chemical products should be disposed and provide training to all Decker staff
- Identify and document what storage areas various Plant Supervisors are responsible for
- Create a procedure on how to store chemicals with multiple hazardous properties and provide training to all Decker staff
- Include conformance to procedures to Environmental Coordinator's monthly inspection checklist.

Understand the Work Culture

- Culture Change vs. Caring
- How do employees do their work?
- What are the employees' concerns?
- How do employees access information?
- How does the facility identify and fix problems?
- How do employees want to be recognized?
- Bring in accountability and remove the blame

Integrate

- Incorporate training on environmental tasks into OJT
- Create Job Proficiencies Measures for environmental tasks
- Incorporate environmental checks into Operators daily inspections
- Re-evaluate preventative maintenance (PM's) and reinstate PM's on critical equipment
- Monthly site safety inspection became safety and environmental inspection

Align People with Their Passion

- Difficult to change people
- People will do best at what they enjoy the most
- Discover hidden talents
- Environmental Section Restructuring

BECAUSE WE CARE



Austin Energy is a recognized leader among energy service providers in environmental stewardship and conservation.

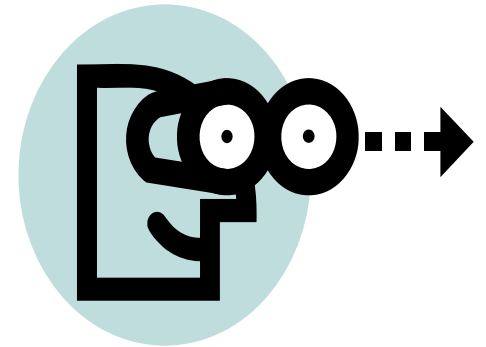
Austin Energy continuously improves its environmental performance through its Environmental Care Program.

Austin Energy's Environmental Care Program ensures compliance with all applicable environmental laws, regulations, and permit conditions

Thank You!

The text "Thank You!" is rendered in large, bold, 3D block letters. The letters are yellow with a gradient to orange and have a dark orange shadow. The text is positioned over a stylized landscape background that includes green trees, a brown hill, and a blue body of water. At the bottom left of the "Thank You!" text, there is a small logo for "TRGY" inside a yellow speech bubble.

Setting Environmental Improvement Goals



- Re-evaluate aspects with focus on non-routine activities and emergencies
- Identify Significant Aspects and those that:
 - Have potential related cost saving goals
 - Are a measure of behavioral improvements at site
 - Have extraordinary value to the community
- Negotiate goals with TCEQ and EPA

Setting Environmental Improvement Goals

- Two past goals and four future goals for Leader Level
- One past goal and two future goals for Lone Star Level
- Choose from the Environmental Performance Table in Appendix A (*Note-Spill Reduction is gone*)
- Quantifiable using units from Environmental Performance Table
- Beyond what is required by law at time of application
- Goals must represent measurements facility-wide

Setting Environmental Improvement Goals

- Related to significant aspects, but it's not required
- Future goals cover a three-year period with annual targets
- No more than two goals can be selected from same category
- One project can achieve more than one goal
- Goals can be a result of on-going projects related to past goals
- Allowed to normalize goals based on output

Material Use Goal

- Can be used when material at facility is used in equipment and not consumed (examples: PCBs in electrical equipment, asbestos insulation)
- Can be used when removing historical contamination beyond what is required by law
- Hazardous Material is not based on existing regulatory definitions for term “Hazardous”
- Does not include reduction in storage capacity

Water Use Goal

- When switching sources for water at facility
 - Cannot count reduction of original source of water. For example, switching from use of City potable water to river water treated on-site
 - Consider Energy Use associated with water treatment or Material Use related to chemical treatment of water instead

Air Emission Goal

- For greenhouse gas emissions:
 - Must report direct, indirect and off-sets
 - Reductions may derive from reduced energy use, reduced process related emissions, and increased off-sets
 - Consider Energy Use goal if decrease due solely to reduced energy use
- For fleet related air emissions, must count all fleet emissions (gas and diesel fueled vehicles)

Waste Goal

- Must report management method
- Commitment can be to reduce the amount generated, to switch to environmentally preferable management method or both.
- If only switching to environmentally preferable management method, total waste quantity cannot increase.

Waste Goal

- Restriction for counting wastewater refers to discharges from NPDES outfalls
- Hazardous Waste Generation is not based on the RCRA definition for “Hazardous” (for example, PCBs and asbestos are hazardous, but not RCRA Hazardous Waste).